Wright-Patterson AFB

Environmental, Safety and Occupational Health (ESOH) Newsletter

February 2001

In This Issue

ECAMP is Around the Corner
Team Members Needed

by Karen Thompson, ECAMP Program Manager
Environmental Management

The 2001 Internal Environmental Compliance Assessment and Management Program (ECAMP) evaluation of Wright-Patterson AFB is scheduled for **23 – 27 Apr**. The internal ECAMP evaluation affords the base community an excellent opportunity to examine the progression of our environmental programs, and in so doing, identify model programs that are making a real difference and improve those areas that may not be in compliance.

Contractors as well as base organizations are subject to ECAMP evaluations. A team of qualified volunteers from organizations throughout the base will conduct the assessment. This team will evaluate the following 13 major compliance categories (protocols):

Air Emissions	Natural Resources	Solid Waste
Cultural/Historical Resources	Other Environmental Issues*	Storage Tanks
Hazardous Materials	Pesticides	Toxic Substances**
Hazardous Waste	Petroleum, Oil & Lubricants (POL)	Wastewater/Stormwater
Water Quality (potable water)		

*Includes management of EIAP (813s etc.), environmental noise, restoration, pollution prevention, and program management
**Includes management of asbestos, lead-based paint, PCBs, and radon.

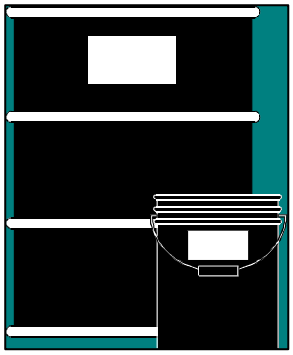
Volunteer support is critical to the base community to ensure we have diversity of background and experience on the team. In turn, volunteers gain valued experience in environmental compliance and auditing techniques. This effort will require a week's commitment from the volunteer plus one-half day of orientation training. Management's support in allowing volunteers to participate is greatly appreciated. **Qualified personnel in your organization who would like to volunteer and who have had the required ECAMP training are encouraged to contact the ECAMP Program Manager, Ms. Karen Thompson (88 ABW/EM0), at 72010, extension 211 for more information.**

It is critical that all base organizations be aware of this evaluation and the need for significant progress over the next three months in closing findings from the 2000 External ECAMP evaluation. It is equally important that all organizations strive to be vigilant in preventing reoccurrence of deficiencies. We all have a stake in ensuring that Wright-Patterson continues to be a leader in the management and protection of our environmental resources.

EPCRA Hazardous Chemical Inventory Reporting

by Chris Tumbusch, EPCRA Program Manager
Environmental Management

Executive Order (EO) 12856 "Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements," 6 Aug 93, requires all Federal facilities to comply with the Emergency Planning and Community Right to Know Act (EPCRA). Each year, with a due date of 1 March, WPAFB prepares a hazardous chemical (HC) inventory report, or Tier II report, as required by Section 312 of EPCRA. This report is submitted to the Local Emergency Planning Committee (LEPC), State Emergency Response Commission (SERC), and the Base Fire Department.



The purpose of this report is to provide hazardous chemical information to local emergency planners and also to the local community. The local committees must identify what chemicals are in use in their planning district to enhance preplanning response efforts for hazardous chemical incidents. Also under this law, local citizens have a "Right-to-Know" and therefore may request access to developed inventory reports and emergency plans.

What chemicals are reported? Any Hazardous Chemicals (HC), OSHA Extremely Hazardous Substance (EHS), or any chemical covered under OSHA Hazard Communication Standards. This leaves it pretty wide open. OSHA publishes a specific list of 360 EHS's, but if you look for a list of such hazardous chemicals, you won't find one. Under this regulation, a chemical is a "hazardous chemical" if it exhibits an acute health hazard, a chronic health hazard, is a fire hazard, is reactive, or if a sudden release of pressure may occur.

What are the reporting thresholds or "Threshold Quantities"? The Threshold Quantity for all Hazardous Chemicals is 10,000 pounds. If on WPAFB, on any one day in the previous calendar year, we store more than 10,000 pounds of any one Hazardous Chemical or a mixture containing the "Threshold Quantity" of any Hazardous Chemical, the base must report that chemical. The Threshold Quantity for an Extremely Hazardous Substance is much less at only 500 pounds, or the listed Threshold Planning Quantity, which ever is less.

What activities or chemicals substances are exempt? There are five exemptions under this law:

1. Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration:

2. Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use;

3. Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public;

4. Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual;

5. Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

Please note that these exemptions do not apply to Extremely Hazardous Substance (EHS) notifications.

How are hazardous material data tracked and how are the data for this report generated for WPAFB? With the exception of some bulk hazardous materials (HM), HM information on WPAFB is documented electronically using two separate tracking systems. These tracking systems are the Integrated Materials Management System (IMMS), which is used exclusively for AFRL organizations, and the Hazardous Materials Management System (HMMS), which is used by the remainder of the base. Bulk Hazmat data not accounted for in these systems are identified using an above-ground and underground storage tank database maintained in the EM Office, and other data, such as bulk fuels data collected directly from United Paradyne Corp. The data reported are prior calendar year Hazmat inventory data.

In conclusion, WPAFB prepares and submits an EPCRA Tier II report annually prior to 1 March. Chemicals included in this report are those that exceed a designated Threshold Quantity or Threshold Planning Quantity on any given day within the previous calendar year.

The "Emergency Planning and Community Right-To-Know" Law was passed to help protect communities from uncontrolled releases of toxic chemicals. It was prompted by a tragic incident on Dec. 3, 1984 when gas leaked from a tank of methyl isocyanate (MIC) at a pesticide plant in Bhopal, India. The official documentation of deaths and injuries report that approximately 3,800 persons died, 40 persons were with permanent total disability, and 2,680 persons were with permanent partial disability. There is conclusive evidence that the tragedy was caused by employee sabotage. Although it was not known at the time, the gas was formed when a disgruntled plant employee, apparently bent on spoiling a batch of methyl isocyanate, added water to a storage tank. The water caused a reaction that built up heat and pressure in the tank, quickly transforming the chemical compound into a lethal gas that escaped into the cool night air.

That Old, Used Equipment May Contain PCBs

by Mary Shelly
AFRL ESOH Trainer

Some of it looks like something you'd find on the set of a science-fiction series. I saw one piece the other day that had all sorts of weird knobs and gizmos sticking out the side of it. It is not uncommon to see various pieces of exotic research equipment rolled out in the hallways of AFRL. But before this equipment can be turned in to the Defense Reutilization and Marketing Office (DRMO) to hopefully find a home elsewhere, there are certain environmental procedures and certification requirements that must be met. This is to ensure that any potential environmental hazards associated with government equipment are addressed before the equipment is sold to the public.

One example of this is sampling for polychlorinated biphenyls or PCBs prior to equipment turn-in. PCBs, made up of chlorine and benzene, are a colorless liquid possessing many desirable insulating and nonflammable uses. They have been used in a wide variety of industrial and consumer products over the years. For example, PCBs have been used as heat exchange and dielectric fluids in capacitors and transformers such as those seen on utility poles that feed electricity into homes. They have been used in hydraulic and lubricating fluids, diffusion pump oils, plasticizers, extenders for pesticides, and as ingredients of caulking compounds, paints, adhesives, and flame-retardants. PCBs have also been used in inks and carbonless paper, in motors in refrigerators, air conditioners, furnace blowers, and clothes washers and dryers. Trade names for PCBs include Aroclor, Askarel, Eucarel, Pyranol, Dykanol, Clorphen, Asbestos Diaclor, Nepolin, and EEC-18.

PCB mixtures are colorless to dark brown oils, viscous liquids, or sticky resinous semi-solids. They evaporate slowly at room temperature; however, their volatility increases dramatically with small increases in temperature. Overheated equipment that contains PCBs can vaporize significant quantities of these compounds, causing an inhalation hazard, especially in areas where ventilation is poor. Today PCBs are found mainly in transformers and capacitors manufactured before the U.S. Environmental Protection Agency (EPA) banned the production of PCBs in 1977. Many of these old transformers and capacitors are still contained in industrial equipment (such as welding equipment), medical equipment (such as X-ray machines), and household appliances (such as

refrigerators, air conditioners, furnace blowers, and clothes washers and dryers). Ballasts of fluorescent light fixtures may contain PCBs. During normal lighting operation, the PCBs are entirely enclosed; however, when the capacitor wears out, it may burn or break and leak PCBs.

Over the decades large quantities of PCBs have entered the environment and have caused birth defects, cancer, and death in animals and may be carcinogenic in humans. PCBs have caused elevated liver enzyme levels and chloracne in humans, and may have reproductive effects. PCBs are environmentally persistent and concentrate upward in the food chain, have a high toxicity, and cause ecological damage via water pollution.

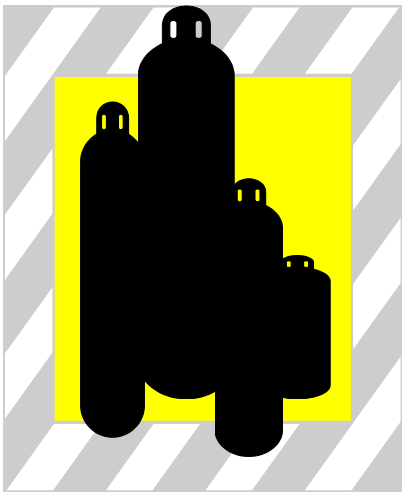
PCB sampling was conducted in the early 1990s as part of the basewide PCB survey to identify, reduce, and ultimately eliminate PCBs to the greatest extent possible on Wright-Patterson. Periodically, equipment that contains PCBs is identified as surplus. Environmental Management has tried to identify all PCB-containing equipment by giving it a **Tag Number** and entering it into a database. The Tag Number is tied to the equipment/ machinery's serial number, building number, and manufacturer data.

Before any items requiring the addition of oil can be turned in, they must be sampled for PCBs. Environmental Management (EM) does the sampling for PCBs but the equipment owner must initiate the request. Environmental Management can query the PCB database on any of the information provided by the equipment owner to retrieve sample data. If the Tag Number cannot be located and the item cannot be verified to be manufactured after 1979, the equipment owner must provide EM the serial number, building number and any additional manufacturer data so EM can query the database prior to the item being sampled. Items containing transformers / capacitors shall be turned into the DRMO "as is" (NOTE: DO NOT REMOVE ANYTHING). The DRMO will attempt to reutilize, transfer, donate or sell the item. If this is not possible, DRMO has a contractor who will disassemble and salvage precious metals and properly dispose of any hazardous property. But in order for this to occur, your cooperation is needed to identify and properly handle equipment that may contain hazardous materials.

Some information in this article was obtained from the following web site:
http://www.copa.org/library/reports/atsdr/pcbatsdr.htm

For additional information or questions regarding sampling of equipment for PCBs or other hazardous materials prior to turn-in, contact Environmental Management at 77152 or visit EM's web site at: http://www.abwem.wpafb.af.mil/em/emc/pcb/default.cfm

Obtaining Compressed Gas Cylinders:

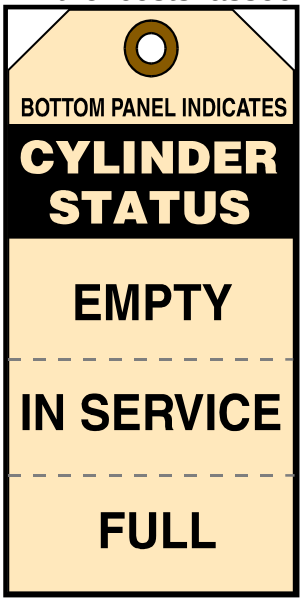


By John Banford
Chief, HAZMAT Cell

Base organizations are now on their own with regard to obtaining compressed gas cylinders. In the recent past, Environmental Management's HAZMAT Cell was notified that Base Contracting would not renew the centralized compressed gas contract. Cylinders must now be purchased using the Government Purchase Card (GPC) once supplies are depleted from the HAZMAT Warehouse. Compressed gases are considered a HAZMAT and must be properly procured and managed in accordance with established environmental, safety and occupational health (ESOH) guidelines.

This change went into effect because the centralized compressed gas contract has consistently failed to meet the $2,500.00 purchase threshold required by SAF/AQ to make contract administration cost effective. Specific procedures have been established to purchase HAZMAT on GPC (previously International Merchant Purchase Authorization Card). It is extremely important that these procedures are followed to ensure compliance with established ESOH regulations. These procedures can be reviewed in the WPAFB HAZMAT Management Plan assigned to your Unit Environmental Coordinator or electronically on the Environmental Management Web Page, at http://wrigem.wpafb.af.mil/em/.

This change will allow organizations to make the decision whether to keep and maintain government cylinders or rent cylinders from the vendor. Gas cylinders are owned by the organization, not Base Supply, and must be managed and maintained in accordance with Technical Order 42B-1-23. Approximately half of the costs associated with gas cylinder contracts have been attributed to the maintenance of government-owned cylinders.

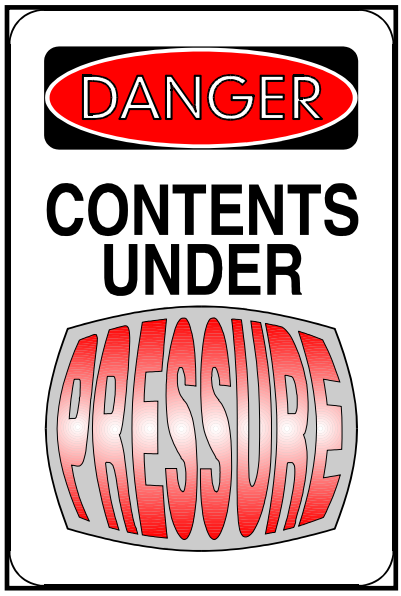


Organizations may desire to turn in their cylinders to Base Supply if they decide to rent cylinders from a vendor. If opting to rent from a vendor, only empty government cylinders should be turned in to Base Supply. Any cylinders containing product must be managed in accordance with the HAZMAT Excess Program via your Unit Environmental Coordinator and the HAZMAT Cell.

Cylinder Identification Tags: A general observance from last year's ECAMP was that the majority of the government owned cylinders did not contain the required DD Form 1574 in

accordance with TO 42B5-1-2. Filled cylinders must be identified with two tags (DD Form 1574). One to identify the content and the other tag to identify the cylinder. This is in addition to the DOT label for identification. Once depleted, the cylinders content DD Form 1574 is removed and the cylinder identification tag is over-stamped “MT” (meaning the tank is empty).

If you have any questions or should you need further clarification please contact your Unit Environmental Coordinator or Mr. John Banford, Chief, HAZMAT Cell at 7-8015 ext. 301.

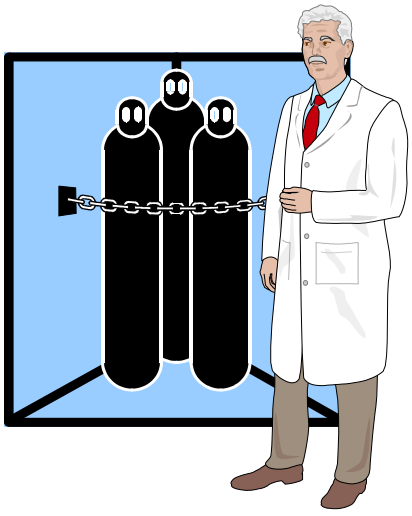


Working Safely with Compressed Gas Cylinders

By SSgt Kevin Smith
AFRL/PROE Ground Safety

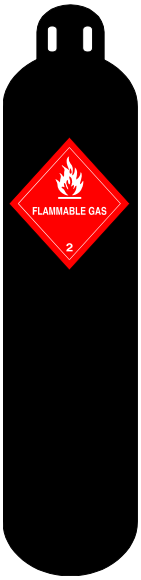
Compressed gas bottles can be found almost everywhere on base, from the base flower shop to the Hospital. Of course, as you well know, they can also be found in research facilities. There are many different gasses in use and each one has it’s own physical and chemical properties. I could write an article for each and every one, but for this article I just want to focus on the bottles.

According to the Occupational Safety and Health Administration (OSHA) 29 CFR 1910.101 (a) “Each employer shall determine that compressed gas cylinders under his control are in a safe condition to the extent that this can be determined by visual inspection. Visual and other inspections shall be conducted as prescribed in the Hazardous Materials regulations of the Department of Transportation (49 CFR 171-179 and 14 CFR part 103). Where those Regulations are not applicable, visual and other inspections shall be conducted in accordance with Compressed Gas Association Pamphlets C-6-1968 and C-8-1962, which is incorporated by reference as specified in Sec. 1910.6”



When performing these visual inspections you want to look for such things as: burns, gouges, cuts, rust, pitting due to corrosion, and bulges due to over pressurization. You should also ensure that caps are in place to protect the valves when the bottles are not in use. Check to ensure that bottles are secured with a non-conductive

chain or other similar device to prevent tipping. Also ensure the tag matches the label and **never change the fittings or couplings**. This is what happened at a local nursing home a few weeks ago and several people died because nitrogen was hooked to an oxygen system. Also the tag had been changed without checking the contents of the bottle.

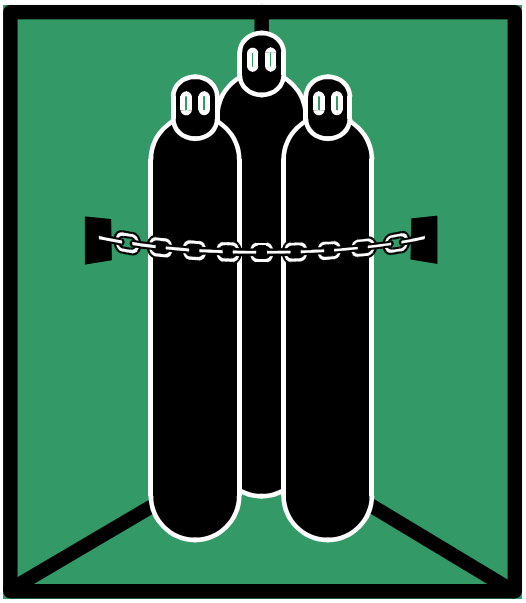


When moving gas bottles, use the proper material handling devices such as bottle carts, and take care not to damage the bottle. Do not use hoists with slings in a “choker” position. The most important thing is to report any damaged bottles immediately to the proper personnel so they may be replaced.

Air Force and Department of Transportation Regulations require hydrostatic testing of bottles. These regulations vary depending on the kind of bottle and if it is being stored or if it is being transported. Check with your Unit Environmental Coordinator or Vendor for specific requirements.

For more details on cylinder requirements, including hydrostatic testing, please see the following web sites:

http://www.dlaps.hq.dla.mil/I414525.pdf
http://www.dlaps.hq.dla.mil/I414525encl1.pdf
http://www.dlaps.hq.dla.mil/I414525encl2.pdf
http://www.osha-slc.gov/OshStd_data/1910_0101.html
http://63.141.231.97/cgi-bin/om_isapi.dll?infobase=netdot&softpage=Doc_Frame_Pg42



Kick the Habit - TOBACCO USE

by Patricia Kehl
Health and Wellness Center

Have you ever wondered, if cigarettes are so bad, why do people keep smoking them? The answer is that they're **addictive**. Nicotine is the drug in all tobacco products that hooks its users. It is as powerful as any of the strongest illegal drugs, such as heroin or cocaine. It grabs slowly, and keeps a death grip on a user, often to the day she or he dies. **And cigarettes do kill many smokers** – hundreds of thousands of people each year.

If you smoke, get help to stop. The quitting process is difficult, but it's the only way to save your health.

Cigarettes injure and kill, and not just because of the smoke. Fires caused by smokers who fall asleep in bed, or by small children who play with the matches of a smoker, kill thousands of people each year.

If you smoke, your cigarette isn't the only thing that burns up! Poisons in cigarette smoke age your skin and dry it out, causing wrinkles. Smoking not only robs your health, it makes you look older than you otherwise would appear.

WHAT ARE THE CHANCES THAT SMOKING OR CHEWING TOBACCO WILL KILL YOU?

Smoking is the single most preventable cause of premature death in our society! Each year, more than 400,000 Americans die from cigarette smoking. In fact, one in every five deaths in the United States is smoking related. Every year, smoking kills more than 276,000 men and 142,000 women.

What are the Health risks of smoking and chewing tobacco?

About 10 million people in the United States have died from causes attributed to smoking (including heart disease, emphysema, and other respiratory diseases) since the first Surgeon General's report on smoking and health in 1964—2 million of these deaths were the result of lung cancer alone.

Tobacco use accounts for 30%, or 1 in 3, of all *cancer* deaths in the United States.

Where can you or people you care about go for help?

It's hard to fight any addiction, and smoking is no different. But you can quit! If you want to quit smoking, the Health and Wellness Center can help.

The HAWC has scheduled afternoon and evening Smoking Cessation Classes throughout the coming year. They run Tuesdays and Thursdays each week for 3 weeks.

For the person who wants to quit "Cold Turkey", we have the 5 DAY "DO IT" program. This class runs 8 hrs/day for 5 days.

REMEMBER: Zyban is available for either program on provider recommendation. The HAWC is offering FREE Nicotine Replacement Therapy (patches) to the first 100 Civilians who qualify and enroll in the 3 week class.

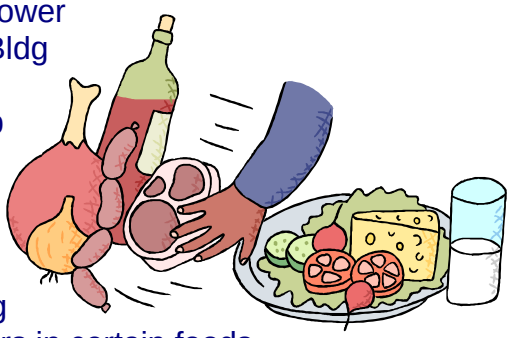
The Health and Wellness Center has Tobacco Cessation programs designed for your needs. For more information about quitting tobacco use, call the HAWC @ 257-9896.

Mark your calendars for the AFRL Mini Health Fair

When: 22 Feb 01, 10:00-2:00

Where: Bldg 653 (AFRL/ML) Cafetorium located across from the main entrance to the Materials Lab. Open to all.

Representatives from the *Health and Wellness Center* will be providing information on a wide variety of topics including:



Blood Pressure - what the numbers mean and how to lower them. A blood pressure machine is now located in the Bldg 653 Cafetorium and will be available for your use.
Cholesterol - how to lower yours (opportunity to sign up for future cholesterol screenings at the HAWC).
Diabetes Screening
Nicotine/Smoking Cessation - keep that New Year's resolution!
Nutrition and fad diets - there will be a display showing the food pyramid, proper serving portions, fats and sugars in certain foods etc. (This is a very interesting display!)
Exercise - starting an exercise program you can stick with.

Representatives from the *CAP Office* will be providing information on:

Ergonomics - exercises and equipment to reduce cumulative trauma injuries like carpal tunnel and back pain; ergonomically correct equipment; and
Assistance - with chronic or acute injuries to help you be more comfortable doing your job.

Representatives from the ML *Integrated Materials Management Office* (IMMO) will be providing information on:

Chemical Hygiene and Safety - personal protective equipment will be displayed along with information on how to choose the right PPE for the job. Information on chemical safety, storage and compatibility will be available. See if you can pick the right PPE for the chemical.

...and more...like have you ever wondered what carrying around that extra twenty pounds feels like? We'll let you strap on the fat and see for yourself. So come to the Mini Health Fair at Bldg 653 Cafetorium on 22 Feb and learn how you can live a healthier life.

ESOH Training and Opportunities

CPR Training

Cardiopulmonary Resuscitation or CPR Training is required for electrical and confined space workers per 29 CFR 1910.151. The American Heart Association recommends CPR refresher training every two years and the American Red Cross recommends CPR refresher training every year.

CPR training (per the American Heart Association) is taught at the Base Hospital every Tuesday provided that there are enough students for a class. If you are interested in receiving CPR training, contact Marcia Wilson at x79347.

RCRA Hazardous Waste Training

Initial Training - 15 Mar, 17 May, 19 Jul 01
Schedule with **Shelly Baty** x77152 x281

Annual Refresher Training
AFRL Employees Only: 8 Mar, 10 May, 12 Jul 01
Schedule with **Mary Shelly** x59000

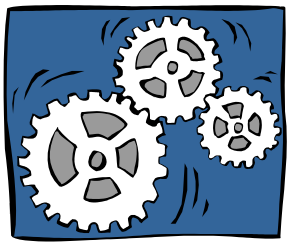
Organizations other than AFRL: 15 Feb, 19 Apr, 21 Jun 01
Schedule with **Shelly Baty** x77152 x281

ESOH Awareness Training - 11 Apr, 11 Jul, 10 Oct 01

Schedule with Public Health at 52515

This course covers a broad range of topics and requirements that apply to all of us at Wright-Patterson. This course is highly recommended for all employees on Base, including contractors.

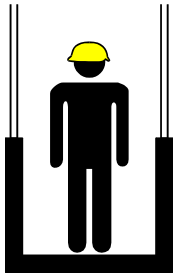
Operational Risk Management Training (Level II)



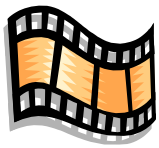
Call Chuck Swankhaus at 43390 to schedule

This course will teach you the skills necessary to anticipate and avoid costly and possibly injurious mistakes or delays in your program. By learning and applying tools to identify and eliminate potential land mines BEFORE they occur, your project will run more smoothly. This is NOT just a safety program. Any task you're faced with requires proper planning to ensure successful completion.

Crane and Hoist Training



If you work with cranes and hoists as part of your job, you are required by OSHA 1910.178 and AFOSH Std. 91.46 to receive training on such equipment. Contact your safety representative to find out how to get this training for your organization.



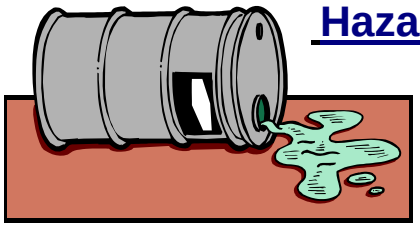
Check out these Lab Safety Videos!

Flammables and Explosives in the Lab

(8:00) – Covers safe handling of flammables and explosives including: flash point, flammable limits, ignition temperature, use of MSDS; spill and emergency procedures; transport & storage of flammables including compressed gases; waste disposal.

Electrical Safety in the Laboratory

(11:00) – This video discusses how to avoid chemical fires by covering amps, circuits, circuit breakers, grounding and GFI protection; avoiding common electrical hazards; choosing equipment for use with flammables; fires and other emergencies. Discusses need for first aid and CPR training for these employees.



Hazardous Material Leaks, Drips and Spills Cleanup

(5:00) - Planning for a hazmat spill: adequate chemical spill equipment, sorbents, and PPE; what to do to clean up chemical spills; proper disposal of spill equipment and waste.

Contact Mary Shelly at x59000 if you would like to borrow any of these videos or see a list of other safety, environmental, and occupational health related videos that may be checked out.

If you have any suggestions or comments for this newsletter or if you would like to be added / removed from the distribution list, please contact Mary Shelly at 255-9000.